WHAT IS CLAIMED IS:

1. A laser comprising:

a waveguide block having a least one waveguide channel formed therein;

a lasing gas including carbon dioxide within said waveguide channel; and

a laser resonator having a resonator axis extending through said waveguide channel;

said waveguide block being located between electrodes arranged to energize said lasing gas such that laser radiation is generated in said laser resonator; and

wherein at least the channels of said waveguide block are formed substantially from a beryllium oxide ceramic material, and said laser radiation has a wavelength between about 9.2 and 9.7 micrometers.

2. The laser of claim 1, wherein said waveguide block includes a plurality of waveguide channels arranged end to end in a zigzag pattern and said resonator axis is folded by at least one mirror such that said resonator axis extends through said plurality of waveguide channels.

3. The laser of claim 2, wherein said waveguide block includes seven waveguide channels.

4. The laser of claim 1, wherein said laser resonator includes a Q-switch arrangement for causing said laser radiation to be generated as a train of laser pulses.

5. The laser of claim 1, wherein said lasing gas has a pressure between about 80 and 100 Torr and said waveguide channels have a depth greater than or equal to about 0.090 inch.

6. The laser of claim 1, wherein said laser radiation is generated as repeated bursts of 3 or more laser pulses.

7. The laser of claim 6, wherein said bursts of pulses are repeated at a frequency of about 1 KHz or greater.

8. The laser of claim 1, wherein said laser radiation is generated as CW radiation.

9. The laser of claim 1, wherein said at least one and any other waveguide channels are covered by a plate of a beryllium oxide material.

10. The laser of claim 1, wherein said at least one and any other waveguide channels are covered by a titanium plate.

11. The laser of claim 1, wherein said waveguide block is formed of beryllium oxide ceramic.

12. A laser comprising:

a waveguide block having a least one waveguide channel formed therein, said waveguide block being formed substantially from beryllium oxide;

a lasing gas including carbon dioxide within said waveguide channel;

said waveguide block being located between electrodes arranged to energize said lasing gas such that laser radiation is generated in said laser resonator; and

a laser resonator having a resonator axis extending through said waveguide channel, said laser resonator being terminated by mirrors having wavelength selective coatings configured to cause lasing at about 9.3 microns.